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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,153	08/31/2000	Peretz Moshes Feder	2925-434P	2613

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EXAMINER	
NGUYEN, DUSTIN	

ART UNIT	PAPER NUMBER
2154	10

DATE MAILED: 04/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Office Action Summary	Application No.	Applicant(s)	
	09/652,153	FEDER ET AL.	
	Examiner	Art Unit	
	Dustin Nguyen	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4, 7-14, 18-20 and 24* is/are rejected.

7)☒ Claim(s) *5,6,15-17 and 21-23* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-24 are presented for examination.

Response to Arguments

2. Applicant's arguments filed 02/20/2004 have been fully considered but they are not persuasive.

3. As per remarks, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the teaching of Gummalla would provide for improved access delay and improved throughput performance [Gummalla, col 7, lines 62-65].

4. As per remarks, Applicants' argued that (1) Gummalla does not teach or suggest obtaining a back-off delay window that is "less than two times a preceding back-off delay window" as recited in claim 1.

5. As to point (1), Gummalla discloses the above limitation as mentioned in the previous Office Action. Furthermore, Gummalla discloses less than two times a preceding back-off delay window [i.e. random back-off value which control the size of the window] [col 11, lines 21-37; and col 18, lines 18-23].

6. As per remarks, Applicants' argued that (2) Gummalla does not teach or suggest obtaining a back-off delay window that is "equal to a preceding or future back-off delay window" as recited in claim 7.

7. As to point (2), Gummalla discloses obtaining a back-off delay window that is equal to a preceding or future back-off delay window [col 14, lines 10-25; and col 17, lines 23-35].

8. As per remarks, Applicants' argued that (3) Gummalla does not teach obtaining a back-off delay window that is "greater than a smallest back-off delay window" as recited in claim 18.

9. As to point (3), Gummalla discloses the above limitation [i.e. increase the ratio of back-off start and back-off end values] [C, Figures 5 and 6; and col 20, lines 1-22].

Allowable Subject Matter

10. Claims 5, 6, 15-17, 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 1, 4, 7, 8, 12-14, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. [US Patent No 6,285,662], in view of Gummalla et al. [US Patent No 6,614,799].

13. As per claim 1, Watanabe discloses a method of transmitting data over a medium, the method comprising the step of:

obtaining a back-off delay window for retransmitting a data packet [col 8, lines 17-24], the back-off delay window obtained being based upon a number of unsuccessful transmissions of the data packet or a predetermined initialized value [col 5, lines 43-46; and col 8, lines 36-46].

Watanabe does not specifically disclose the obtained back-off delay window is less than two times a preceding back-off delay window.

Gummalla discloses the obtained back-off delay window is less than two times a preceding back-off delay window [Abstract; and col 6, lines 60-64].

It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Watanabe and Gummalla because Gummalla's teaching of back-off delay window would allow Watanebe's system to select a contention window that can reduce delay in network retransmission.

14. As per claim 4, Watanabe discloses the obtained back-off delay is determined using a formula [col 10, lines 33-45; and col 11, lines 46-60].

15. As per claim 7, Watanabe discloses method of transmitting data over a medium, the method comprising the step of:

obtaining a back-off delay window for retransmitting a data packet [col 8, lines 17-24], the back-off delay window obtained being based upon a number of unsuccessful transmissions of the data packet or a predetermined initialized value [col 5, lines 43-46; and col 8, lines 36-46].

Watanabe does not specifically disclose the obtained back-off delay window is equal to a preceding or future back-off delay window.

Gummalla discloses the obtained back-off delay window is equal to a preceding or future back-off delay window [col 7, lines 15-20 and lines 41-43].

It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Watanabe and Gummalla because Gummalla's teaching of back-off

delay window would allow Watanebe's system to select a contention window that can reduce delay in network retransmission.

16. As per claim 8, Watanabe discloses the preceding back-off delay window is a back-off delay window which occurred immediately prior to the obtained back-off delay window [col 11, lines 60-65].

17. As per claim 12, it is rejected for similar reason as stated above in claim 4.

18. As per claim 13, Watanabe disclose the formula for determining the obtained back-off delay contains a function for converting a non-integer value to an integer value [col 5, lines 26-29].

19. As per claim 14, Watanabe discloses the function converts the non-integer value to a smallest integer value which is greater than the non-integer value [col 11, lines 53-54].

20. As per claim 18, Watanabe discloses a method of transmitting data over a medium, the method comprising the steps of:

transmitting a data packet without contention [col 3, lines 51-55].

Watanabe does not specifically disclose decreasing a back-off delay window for transmitting a next data packet, the decreased back-off delay window resulting in an obtained back-off delay window being greater than a smallest back-off delay window, and wherein the

decrease in the back-off delay window is based upon a variable integer value or an predetermined value.

Gummalla discloses decreasing a back-off delay window for transmitting a next data packet, the decreased back-off delay window resulting in an obtained back-off delay window being greater than a smallest back-off delay window, and wherein the decrease in the back-off delay window is based upon a variable integer value or a predetermined value [col 8, lines 32-50].

It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Watanabe and Gummalla because Gummalla's teaching of back-off delay window would provide a dynamic method to determine back-off window value according with the network traffic.

21. As per claim 19, Watanabe discloses if the obtained back-off delay window is less than a predetermined minimum back-off window, the obtained back-off delay window is set equal to a predetermined minimum back-off window [col 9, lines 33-53].

22. As per claim 20, Watanabe discloses the obtained back-off delay window is found by subtracting two from a variable value corresponding a number of unsuccessful transmissions of a previously transmitted data packet, the resulting difference is then applied to a formula to generate the obtained back-off delay window [col 11, lines 53-56].

23. Claims 2, 3, 9-11, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. [US Patent No 6,285,662], in view of Gummalla et al. [US Patent No 6,614,799], and further in view of Shaffer et al. [US Patent No 6,172,983].

24. As per claim 2, Watanabe and Gummalla do not specifically disclose the obtained back-off delay window is found using a lookup table. Shaffer discloses the obtained back-off delay window is found using a lookup table [Figure 1]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Watanabe, Gummalla and Shaffer because Shaffer's teaching of lookup table would allow to manage data transmission collisions such that a high network throughput and a low network latency are achieved in a cost efficient manner [Shaffer, col 3, lines 24-30].

25. As per claim 3, Shaffer discloses the lookup table comprises predetermined back-off delay window values determinable based upon a number times a given data packet is unsuccessfully transmitted [Figure 1; and col 5, lines 1-7].

26. As per claim 9, Watanabe and Gummalla do not specifically disclose the future back-off delay window is a back-off delay window which occurs immediately following the obtained back-off delay window. Shaffer discloses the future back-off delay window is a back-off delay window which occurs immediately following the obtained back-off delay window [col 6, lines 36-39]. It would have been obvious to a person skill in the art at the time the invention was

made to combine the teaching of Watanabe, Gummalla and Shaffer because Shaffer's teaching would allow to increase system performance.

27. As per claim 10, it is rejected for similar reason as state above in claim 2.

28. As per claim 11, it is rejected for similar reason as stated above in claim 3.

29. As per claim 24, Watanabe discloses the obtained back-off delay window is found by subtracting two from a variable integer value corresponding the number of unsuccessful transmissions of a previously transmitted data packet [col 11, lines 53-56]. Watanabe and Gummalla do not specifically disclose the resulting difference is then applied to a lookup table containing back-off delay window values to thereby reference a corresponding back-off delay window. Shaffer discloses the resulting difference is then applied to a lookup table containing back-off delay window values to thereby reference a corresponding back-off delay window [Figure 1; and 104, Figure 5]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Watanabe, Gummalla and Shaffer because Shaffer's teaching would provide an effective way to control retransmission traffic.

30. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (703) 305-5321. The examiner can normally be reached on Monday – Friday (8:00 – 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follanbsee can be reached on (703) 305-8498.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directly to the receptionist whose telephone number is (703) 305-3900.

Dustin Nguyen

JOHN FOLLANSBEE
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